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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/303,040

DATE: 05/18/1999
TIME: 08:24:56

Input Set: I303040.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

ENTERED

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1  <110> APPLICANT: Winslow, Barbara J.
2  Cochran, Mark D.
3  <120> TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
4  Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4 or
5  Feline Interferon-gamma And Uses Thereof
6  <130> FILE REFERENCE: 54957-B
7  <140> CURRENT APPLICATION NUMBER: US/09/303,040
8  <141> CURRENT FILING DATE: 1999-04-30
9  <150> EARLIER APPLICATION NUMBER: 60/083,870
10 <151> EARLIER FILING DATE: 1998-05-01
11 <160> NUMBER OF SEQ ID NOS: 82
12 <170> SOFTWARE: PatentIn Ver. 2.0
13 <210> SEQ ID NO 1
14 <211> LENGTH: 941
15 <212> TYPE: DNA
16 <213> ORGANISM: feline CD80
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18 <221> NAME/KEY: CDS
19 <222> LOCATION: (1)..(876)
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23       1             5             10             15
24   ccc aag ctc ttt ccg ctc ttg atg cta gct agt ctt ttt tac ttc tgt   96
25   Pro Lys Leu Phe Pro Leu Leu Met Leu Ala Ser Leu Phe Tyr Phe Cys
26       20             25             30
27   tca ggt atc atc cag gtg aac aag aca gtg gaa gaa gta gca gta cta   144
28   Ser Gly Ile Ile Gln Val Asn Lys Thr Val Glu Glu Val Ala Val Leu
29       35             40             45
30   tcc tgt gat tac aac att tcc acc aaa gaa ctg acg gaa att cga atc   192
31   Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile
32       50             55             60
33   tat tgg caa aag gat gat gaa atg gtg ttg gct gtc atg tct gcc aaa   240
34   Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys
35       65             70             75
36   gta caa gtg tgg ccc aag tac aag aac cgc aca ttc act gac gtc acc   288
37   Val Gln Val Trp Pro Lys Tyr Lys Asn Arg Thr Phe Thr Asp Val Thr
38       85             90             95
39   gat aac cac tcc att gtg atc atg gct ctg cgc ctg tca gac aat gcc   336
40   Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly
41       100            105            110
42   aaa tac act tgt att att caa aag att gaa aaa ggg tct tac aaa gtg   384
43   Lys Tyr Thr Cys Ile Ile Gln Lys Ile Glu Lys Gly Ser Tyr Lys Val
44       115            120            125

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45   aaa cac ctg act tcg gtg atg tta ttg gtc aga gct gac ttc cct gtc   432
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48   cct agt ata act gat ctt gga aat cca tct cat aac atc aaa agg ata   480
49   Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Ile
50       145                               150   155   160
51   atg tgc tta act tct gga ggt ttt cca aag cct cac ctc tcc tgg ctg   528
52   Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu
53       165                               170   175
54   gaa aat gaa gaa gaa tta aat gcc atc aac aca aca gtt tcc caa gat   576
55   Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
56       180                               185   190
57   cct gaa act gag ctc tac act att agc agt gaa ctg gat ttc aat atg   624
58   Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met
59       195                               200   205
60   aca aac aac cat agc ttc ctg tgt ctt gtc aag tat gga aac tta cta   672
61   Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Leu
62       210                               215   220
63   gta tca cag atc ttc aac tgg caa aaa tca gag cca cag cct tct aat   720
64   Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn
65       225                               230   235   240
66   aat cag ctc tgg atc att atc ctg agc tca gta gta agt ggg att gtt   768
67   Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val
68       245                               250   255
69   gtg atc act gca ctt acc tta aga tgc cta gtc cac aga cct gct gca   816
70   Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala
71       260                               265   270
72   agg tgg aga caa aga gaa atg ggg aga gcg cgg aaa tgg aaa aga tct   864
73   Arg Trp Arg Gln Arg Glu Met Gly Arg Ala Arg Lys Trp Lys Arg Ser
74       275                               280   285
75   cac ctg tct aca tagattctgc agaaccactg tatgcagagc atctggaggt   916
76   His Leu Ser Thr
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87       20          25          30
88   Ser Gly Ile Ile Gln Val Asn Lys Thr Val Glu Glu Val Ala Val Leu
89       35          40          45
90   Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile
91       50          55          60
92   Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys
93       65          70          75          80
94   Val Gln Val Trp Pro Lys Tyr Lys Asn Arg Thr Phe Thr Asp Val Thr

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96      Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly
97      100      105      110
98      Lys Tyr Thr Cys Ile Ile Gln Lys Ile Glu Lys Gly Ser Tyr Lys Val
99      115      120      125
100     Lys His Leu Thr Ser Val Met Leu Leu Val Arg Ala Asp Phe Pro Val
101     130      135      140
102     Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Ile
103     145      150      155      160
104     Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu
105     165      170      175
106     Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
107     180      185      190
108     Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met
109     195      200      205
110     Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Leu
111     210      215      220
112     Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn
113     225      230      235      240
114     Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val
115     245      250      255
116     Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala
117     260      265      270
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119     275      280      285
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121     290
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133     ccc aag ctc ttt ccg ctc ttg atg cta gct agt ctt ttt tac ttc tgt 96
134     Pro Lys Leu Phe Pro Leu Leu Met Leu Ala Ser Leu Phe Tyr Phe Cys
135     20 25 30
136     tca ggt atc atc cag gtg aac aag aca gtg gaa gaa gta gca gta cta 144
137     Ser Gly Ile Ile Gln Val Asn Lys Thr Val Glu Glu Val Ala Val Leu
138     35 40 45
139     tcc tgt gat tac aac att tcc acc aaa gaa ctg acg gaa att cga atc 192
140     Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile
141     50 55 60
142     tat tgg caa aag gat gat gaa atg gtg ttg gct gtc atg tct ggc aaa 240
143     Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys
144     65 70 75 80

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147      85 90 95
148      gat aac cac tcc att gtg atc atg gct ctg cgc ctg tca gac aat ggc 336
149      Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly
150      100 105 110
151      aaa tac act tgt atc att caa aag att caa aaa ggg tct tac aaa gtg 384
152      Lys Tyr Thr Cys Ile Ile Gln Lys Ile Gln Lys Gly Ser Tyr Lys Val
153      115 120 125
154      aaa cac ctg act tcg gtg atg tta ttg gtc aga gct gac ttc cct gtc 432
155      Lys His Leu Thr Ser Val Met Leu Leu Val Arg Ala Asp Phe Pro Val
156      130 135 140
157      cct agt ata act gat ctt gga aat cca tct cat aac atc aaa agg ata 480
158      Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Ile
159      145 150 155
160      atg tgc tta act tct gga ggt ttt cca aag cct cac ctg tcc tgg ctg 528
161      Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu
162      165 170 175
163      gaa aat gaa gaa gaa tta aat gcc atc aac aca aca gtt tcc caa gat 576
164      Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
165      180 185 190
166      cct gaa act gag ctg tac act att agc agt gaa ctg gat ttc aat atg 624
167      Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met
168      195 200 205
169      aca aac aac cat agc ttc ctg tgt ctt gtc aag tat gga aac tta ata 672
170      Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Ile
171      210 215 220
172      gta tca cag atc ttc aac tgg caa aaa tca gag cca cag cct tct aat 720
173      Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn
174      225 230 235
175      aat cag ctg tgg atc att atc ctg agc tca gta gta agt ggg att gtt 768
176      Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val
177      245 250 255
178      gtg atc act gca ctt acc tta aga tgc cta gtc cac aga cct gct gca 816
179      Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala
180      260 265 270
181      agg tgg aga caa aga gaa atg ggg aga gcg cgg aaa tgg aaa aga tct 864
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190      <213> ORGANISM: feline CD80
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193      1 5 10 15
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195          20          25          30
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197          35          40          45
198 Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile
199          50          55          60
200 Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys
201          65          70          75          80
202 Val Gln Val Trp Pro Lys Tyr Lys Asn Arg Thr Phe Thr Asp Val Thr
203          85          90          95
204 Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly
205          100          105          110
206 Lys Tyr Thr Cys Ile Ile Gln Lys Ile Gln Lys Gly Ser Tyr Lys Val
207          115          120          125
208 Lys His Leu Thr Ser Val Met Leu Leu Val Arg Ala Asp Phe Pro Val
209          130          135          140
210 Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Ile
211          145          150          155          160
212 Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu
213          165          170          175
214 Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
215          180          185          190
216 Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met
217          195          200          205
218 Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Ile
219          210          215          220
220 Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn
221          225          230          235          240
222 Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val
223          245          250          255
224 Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala
225          260          265          270
226 Arg Trp Arg Gln Arg Glu Met Gly Arg Ala Arg Lys Trp Lys Arg Ser
227          275          280          285
228 His Leu Ser Thr
229          290
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233 <213> ORGANISM: feline CD86
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240 Met Gly Ile Cys Asp Ser Thr Met Gly Leu Ser His Thr Leu Leu 15
241          1          5          10          15
242 gtg atg gcc ctc ctg ctc tct ggt gtt tct tcc atg aag agt caa gca 155
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244          20          25          30

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VERIFICATION SUMMARY
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